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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/767,003

01/28/2004

Daniel B. Price

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05/31/2007

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EXAMINER

CAO, DIEM K

ART UNIT

PAPER NUMBER

2194

MAIL DATE

DELIVERY MODE

05/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/767,003

Applicant(s)

PRICE ET AL.

Examiner

Diem K. Cao

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/26/04, 5/21/04, 11/29/04  
3/6/05, 3/23/05, 1/18/06  
4/18/06, 3/25/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-30 are presented for examination.

#### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to a signal directly or indirectly by claiming a medium and the Specification recites evidence where the computer readable medium is define as a “*wave*” (such as a carrier wave) (see specification as original filed, page 27, paragraph 81). In that event, the claims are directed to a form of energy which at present the office feels does not fall into a category of invention.

See MPEP 2106 and 2107.

#### ***Allowable Subject Matter***

3. Claims 4-7, 14-17 and 24-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Claim Objections***

4. Claim 5 is objected to because of the following informalities: claim 5 is depended on itself.

Appropriate correction is required.

*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 8-13, 18-23 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamp (Rethinking /dev and devices in the UNIX kernel) in view of Hewlett-Packard (Installing and Managing HP-UX Virtual Partitions (vPars)).

As to claim 1, Kamp teaches a machine-implemented method, comprising:

- executing a first instance of a driver that is implemented by an operating system kernel instance (inherent from there are multiple device drivers are executed in the system; page 11, lines 1-8),
- establishing a first device node within a first virtual operating system environment (VOSE) of a plurality of VOSEs controlled by the operating system kernel instance (a user with root ... create device node; page 3, paragraph 9, jail; page 5, section 'Solving the /dev maintenance problem', and page 8, paragraph 2),
- establishing an association between the first device node and the first instance of the virtual console driver (All vnodes ... minor numbers; page 11, paragraphs 2-3),

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- in response to access request to device node, determined the associated device for the device node (page 10, paragraph 2 and page 11, paragraphs 2-3).

Kamp does not explicitly teach a virtual console driver, the first process executed in the first VOSE, and in response to determining that the first device node associated with the first instance of the virtual console driver, sending, to the first instance of the virtual console driver, data received from the first process. However, Hewlett-Packard teaches each virtual partition has its own virtual console and virtual console driver (With vPars ... driver; page 41, section Virtual Consoles), the first process executed in the first VOSE (each virtual partitions ... same application can run in different virtual partitions; page 21, section 'Product Features'), and in response to determining that the first device node associated with the first instance of the virtual console driver, sending, to the first instance of the virtual console driver, data received from the first process (For each partition, its console I/O is sent to its vcn (Virtual CoNsole) driver; page 41, paragraph 1-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Hewlett-Packard to the system of Kamp because Hewlett-Packard provides a method for multiple partitions in a server to have access to a console that allow special control and display system error messages (page 41, first paragraph).

As to claim 2, Hewlett-Packard teaches wherein, except for processes executing in the first VOSE, the first device node is not accessible by any processes executing in any VOSE of the plurality of VOSEs (Users on one virtual partition cannot access files or file systems on other partitions; page 21, section 'Product Features').

As to claim 3, Kamp as modified by Hewlett-Packard teaches wherein the first device node is exposed as “/dev/console” to processes executing in the first VOSE (see Kamp, the administrator will want ... “/dev”, page 5, section ‘Solving the /dev maintenance problem’) and (see HP – virtual consoles; page 41).

As to claim 8, it is the same as the claim 1 except the virtual console driver, and device node are established for the second virtual operating system. However, Hewlett-Packard teaches each partition has its own virtual console and virtual console driver. It would have been obvious that all the steps apply to the first virtual operating system will also apply for the second and/or third virtual operating system. For teaching of each limitation in this claim, see rejection of claim 1 above.

As to claim 9, Hewlett-Packard teaches wherein,

- except for processes executing in the first VOSE, the first device node is not accessible by any processes executing in any VOSE of the plurality of VOSEs (Users on one virtual partition cannot access files or file systems on other partitions; page 21, section ‘Product Features’), and
- except for processes executing in the second VOSE, the second device node is not accessible by any processes executing in any VOSE of the plurality of VOSSES (Users on one virtual partition cannot access files or file systems on other partitions; page 21, section ‘Product Features’).

As to claim 10, Kamp as modified by Hewlett-Packard teach wherein,

- the first device node is exposed as “/dev/console” to processes executing in the first VOSE (see Kamp, the administrator will want ... “/dev”, page 5, section ‘Solving the /dev maintenance problem’) and (see HP – virtual consoles; page 41), and
- the second device node is exposed as “/dev/console” to processes executing in the second VOSE (see Kamp, the administrator will want ... “/dev”, page 5, section ‘Solving the /dev maintenance problem’) and (see HP – virtual consoles; page 41).

As to claim 11, it is the same as the method claim of claim 1 except it is a computer product claim, and is rejected under the same ground of rejection.

As to claims 12-13 and 18-20, see rejections of claims 2-3 and 8-10 above.

As to claim 21, it is the same as the method claim of claim 1 except it is an apparatus claim, and is rejected under the same ground of rejection.

As to claim 22-23 and 28-30, see rejections of claims 2-3 and 8-10 above.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K. Cao whose telephone number is (571) 272-3760. The examiner can normally be reached on Monday - Friday, 7:30AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DC  
April 27, 2007

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER